The Pathfinder

October 2008

2008 Canadian Orienteering Championships in Fundy Park, NB
From top left: Tim Lee, Thomas Graupner, Darius Konotopetz, Steven Graupner, Caitlin Goeres, Dave Graupner, Jennifer Hamilton, Michael Goeres, Ursula Goeres, Marion Loewen, Pat Graupner // Pat Lee, Muriel Gamey, Lois Watts, Larry Konotopetz

Sport MANITOBA

Manitoba Orienteering Association

Upcoming Events

Date	*Time*	*Location*	*Race Type*	*Organizer*	*Contact*
Sat, Oct. 4	**12:00 PM**	**Brandon Hills**	**Middle**	**Muriel**	**476-2402**
Sun, Oct. 12	**1:00 PM**	**Jessica Lake**	**Long**	**Thomas**	**347-5764**
Sat, Oct. 18	**1:00 PM**	**Carberry (Australia)**	**MOC Middle**	**Tim**	**475-2705**
Sun, Oct. 19	**11:00 AM**	**Carberry (Seton)**	**MOC Long**	**Steven**	**347-5764**
Sun, Oct. 26	1:00 PM	Little Mountain Park	Park Event/Sprint	Jennifer	775-3721

For a complete schedule of events, visit www.orienteering.mb.ca.
To obtain printed schedule brochures, please contact Tim Lee.

Newsletter Information

The Pathfinder is being edited by Thomas Graupner. Publications have been planned for the 1st of April, July, October, and January.

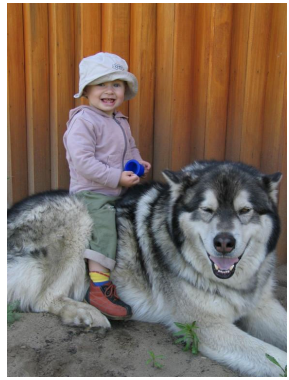
The Pathfinder is being published on the MOA Website and mailed to those without e-mail. If you want to receive a printed copy of the Pathfinder, please contact Thomas Graupner.

MOA Board Briefs

(Thanks to Tim Lee for this information.)

- The board last met in early July. Due to the COC's in N.B., and schedule conflicts we have not had a chance to meet since. We are planning on having our next meeting in early October.
- The board is considering purchasing an additional set of SI units/stands. These extra units will allow the membership to utilize two complete sets, and will allow us to set the high number of controls needed for our upcoming championship summer without having to rely on neighboring provinces. This should allow us to have all our meets using SI which is another element in attracting newcomers.
- The "Hogsback" map is in its final production stages. The preliminary digitizing and fieldwork to date look good, and we can guarantee that the map we will be using at the COC's will be high quality. We expect to have the final version shortly.

- In the next 6 months we will find out where we fit in Sport Manitoba's new funding model. We have the criteria they will be "grading" us on. We will be providing them with a "sport plan", and additional information. Even though the last time we started off a new funding cycle the MOA took a big drop in funding, we are optimistic that Sport Manitoba will continue supporting us as an organization.
- Although all the main COC '09 responsibilities (controller, course planner, meet director) have been filled, there are numerous roles that we need dedicated people to fill. Some of these will be needed during the event itself, and some require a longer commitment. If you have any sponsorship or promotion ideas, please contact Angela or Muriel. If you are able to help out in any way, please contact Dave.
- Our goal as a board is to make the best decisions to help our members, and the sport in Manitoba. Sometimes we make decisions that everyone will agree with, sometimes we do not. If anyone wants a specific topic/issue brought up at a meeting, please let a board member know. Better yet, come to a meeting if you want to make your opinion known. We value everyone's opinion, and ideas on how to make things better.
- MOA has some equipment available for loan to aid in course planning and mapping. This includes a color inkjet printer, scanner, and laptop (fitted with OCAD and CONDES). If you are interested in using this equipment please contact Tim. Thank you to Michael Goeres and his colleagues at the Canadian Council of Ministers of the Environment for their generous donation of our new laptop.



MOA's junior mapper Julie Hejnova with her friend Bully taking a break from fieldwork

Adventure Racers Clinic—Sept. 12, 2008

Over the last number of years, I have had a number of requests from individuals in regards to formal clinic/instruction sessions. Most of these individuals were adventure racers and have taken part in the "Swamp Donkey Adventure Race" which was first held in Sept. '07 at Falcon Lake. We have done intro. clinics in the past with limited success, and this year had 0 on the schedule. My usual response to a clinic request had been "come to a meet near you…….orienteering is awesome…..yada yada yada".

In talking with an organizer from the SD, I had an idea. Why not plan a clinic specifically targeted at these adventure racing folks? I put together an outline for the day, put it on our webpage, the SD webpage, and some Facebook pages. Registration started slow. I told myself that if I did not have 10 people

then I would cancel. Nevertheless, I made 2 trips out to Grand Beach to check the area and update the map. Once the SD crew included us in their monthly mailing newsletter the registrations started pouring in. When all was said and done, I had 35 people registered! Out of the 35, only 2 had been to a meet before. Now I actually had to do some work.

The weather was great for the clinic. The group was wide ranging in terms of experience and ability. Some were experienced adventure racers, some were your average "weekend warrior", and some were just active people looking for something new. It was a challenge to plan a session that would meet everyone's needs/abilities. All participants received a package full of information on O, navigation tips, a map legend, learning tips, and various other O propaganda. After a short instruction session where I explained some basics on map-reading, route choice, the compass, and pacing we were off in to the beautiful woods of Grand Beach. I designed 7 loops of 3 controls throughout the area. I let them know that their goal was to stay in contact with their map, and find the 3 controls in each loop. Most went in pairs so I advised them to change leaders and do a "follow me, follow you" idea. We reconvened at lunch, and then they went back out to finish any remaining loops in the afternoon. 4pm came very quickly and we lost no one. I heard a lot of positive comments upon the completion of the day which made all the planning and work worthwhile.

The high turnout in the clinic rolled over to the selection race next day when we had over 40 participants. Many attended the clinic the previous day, but some only attended on the Sunday. Overall I think the idea was a huge success. This experience motivated me to think of doing sessions like this in the future. Clinics are a great way for newcomers to learn about the sport in a relaxed non-competitive environment. Getting newcomers actually involved in O activities is something I really enjoy….way better than just telling people how good it is….they need to experience it. I am hoping this AR clinic can become an annual event and the interest will continue. Special thanks to Angela and Rudi Bajt for coming out early to help set up controls, and helping out with instruction during the day.

Tim Lee

Manitobans at Out-of-Province Events

(Thanks to Steven Graupner for gathering this information.)

Western Canadian Orienteering Championships (overall ranks only)

Middle M-21+	Patrick Goeres	5/11
	Steven Graupner	9/11
	Thomas Graupner	11/11
Middle M45+	Rudi Bajt	8/9
	Dave Graupner	9/9
Middle M55+	Sheldon Friesen	5/14
	Larry Konotopetz	10/14
Middle F35+	Angela Bajt	2/4
Middle F55+	Muriel Gamey	2/9
	Pat Lee	3/9
	Lois Watts	4/9
Long M-21+	Patrick Goeres	1/9
Long M45+	Dave Graupner	5/11
	Rudi Bajt	7/11
Long M55+	Larry Konotopetz	3/15
Long F35+	Angela Bajt	1/4
Long F55+	Muriel Gamey	1/9
	Lois Watts	4/9
	Pat Lee	5/9
Sprint M-21+	Patrick Goeres	1/7
	Steven Graupner	6/8
	Thomas Graupner	7/8
Sprint M45+	Rudi Bajt	4/9
	Dave Graupner	6/9
Sprint M55+	Sheldon Friesen	6/10
	Larry Konotopetz	8/10
Sprint F35+	Angela Bajt	3/3

Canadian Orienteering Championships (overall ranks in brackets)

Sprint W-20	Caitlin Goeres	2/2 (2/3)
Sprint M-21+	Patrick Goeres	1/22 (2/39)
	Darius Konotopetz	5/22 (9/39)
	Steven Graupner	6/22 (11/39)
	Tim Lee	10/22 (21/39)
	Thomas Graupner	12/22 (25/39)
Sprint M45+	Dave Graupner	9/11 (14/20)
Sprint F45+	Ursula Goeres	6/7 (9/13)
Sprint M55+	Larry Konotopetz	2/9 (3/16)
Sprint F55+	Muriel Gamey	1/1 (2/5)
Middle M-21+	Patrick Goeres	3/22 (4/43)
	Tim Lee	13/22 (24/43)
	Steven Graupner	14/22 (27/43)
	Darius Konotopetz	17/22 (30/43)
Middle M45+	Michael Goeres	5/15 (9/23)
	Dave Graupner	11/15 (18/23)
Middle F45+	Ursula Goeres	6/10 (10/16)
Middle M55+	Larry Konotopetz	6/13 (7/20)
Middle F55+	Muriel Gamey	2/10 (2/14)
	Lois Watts	3/10 (5/14)
	Marion Loewen	4/10 (6/14)
	Pat Lee	5/10 (7/14)
	Jennifer Hamilton	7/10 (11/14)
Long M-21+	Darius Konotopetz	8/16 (15/27)
	Steven Graupner	10/16 (18/27)
Long M45+	Dave Graupner	9/12 (17/20)
Long F45+	Ursula Goeres	7/10 (9/13)
Long M55+	Larry Konotopetz	5/15 (6/22)
Long F55+	Muriel Gamey	1/9 (2/14)
	Marion Loewen	3/9 (4/14)
	Lois Watts	5/9 (9/14)
	Pat Lee	6/9 (10/14)
	Jennifer Hamilton	7/9 (11/14)

Times Per Kilometer (TPKs)

Here are the TPKs of members who seem to have a hope of making one of the 2009 provincial teams. As described in the 2009 Provincial Team Selection Criteria (accessible on the MOA website), an athlete's four best times at 2008 Middle and Long events are averaged to produce what is commonly called just "their TPK." Male athletes need a TPK of 9 minutes or less to make the Junior and Elite teams, or a TPK of 12 minutes or less to make the Development and Masters teams. For female athletes, the respective TPKs are 12 and 15 minutes.

An important exception is that one of an athlete's "best four" times must be from the provincial championships. Thus, it is possible for any athlete to miss the team if they are sufficiently slow at the provincial championships.

Thanks to Steven Graupner, the team statistician, for precisely measuring the courses and calculating everyone's TPK.

Men's Elite Team (potential members)

Athlete	**Current TPK**	**Best four times**
Steven Graupner	6.31 min/km	5.91 (Hartney May 4) 6.17 (Hartney May 3) 6.48 (Glen Valley July 12) 6.68 (Hartney Sept 20)
Darius Konotopetz	7.37 min/km	6.68 (Glen Valley May 25) 7.37 (Hartney May 3) 7.67 (Hartney May 4) 7.76 (Hartney Sept 20)
Tim Lee	7.60 min/km	7.24 (Hartney May 3) 7.34 (Glen Valley July 12) 7.77 (Hartney May 4) 8.04 (Seton July 13)
Thomas Graupner	8.58 min/km	7.46 (Glen Valley July 12) 8.79 (Hartney May 3) 8.95 (Glen Valley May 25) 9.10 (Hartney May 4)
Larry Konotopetz	9.19 min/km	8.45 (Hartney May 3) 8.74 (Hartney May 4) 9.01 (Hartney Sept 20) 10.54 (Glen Valley May 25)

Women's Elite Team (potential members)

Athlete	Current TPK	Best four times
Angela Bajt	10.40 min/km	9.21 (Hartney May 3) 9.88 (Hartney May 4) 10.78 (Glen Valley May 25) 11.73 (Yellow Quill June 8)
Muriel Gamey	11.11 min/km	9.06 (Hartney May 3) 10.84 (Seton July 13) 11.64 (Hartney May 4) 12.89 (Hartney Sept 20)

Men's Masters Team (potential members)

Athlete	Current TPK	Best four times
Dave Graupner	11.71 min/km	10.53 (Hartney May 4) 11.55 (Seton July 13) 12.09 (Hartney May 3) 12.66 (Yellow Quill May 24)
Rudi Bajt	13.05 min/km	11.57 (Hartney May 3) 12.44 (Glen Valley July 12) 13.79 (Hartney May 4) 14.40 (Grand Beach Sept 14)

Women's Masters Team (potential members)

Athlete	Current TPK	Best four times
Pat Lee	13.00 min/km	12.45 (Hartney Sept 20) 12.78 (Hartney May 4) 13.22 (Hartney May 3) 13.56 (Glen Valley May 25)
Lois Watts	13.48 min/km	12.23 (Hartney May 4) 13.06 (Yellow Quill June 8) 14.08 (Glen Valley July 12) 14.54 (Hartney Sept 20)
Marion Loewen	14.98 min/km	11.86 (Hartney May 4) 13.78 (Hartney May 3) 13.83 (Glen Valley May 25) 20.46 (Glen Valley July 12)
Ursula Goeres	15.03 min/km	12.38 (Hartney May 3) 14.14 (Hartney Sept 20) 16.28 (Glen Valley May 25) 17.32 (Glen Valley July 12)

Orienteering, Compasses and Magnetic Declination

(Thanks to Dave Graupner for writing this article.)

What does it mean when you want to go north for 100 meters? Do you go 100 meters towards the North Pole or do you follow the north arrow on your compass for 100 meters? Does it matter? How far off course will I be when following a bearing? If you want the answers to these questions then read on.

The North Pole is a fixed place on the earth's surface. Compasses however point to the magnetic north pole which is not the same as the North Pole. To further complicate matters the magnetic north pole is not stationary – it moves around albeit very slowly. The difference between the bearings to the North Pole (True North) and the magnetic north pole is called magnetic declination. Magnetic declination is usually specified as so many degrees/minutes E or W. For example a magnetic declination of 3° 10' E means that magnetic north is 3 degrees 10 minutes East of True North.

The magnetic declination will vary with your location on the earth's surface as well as over time. Thus when a magnetic declination is specified it must be for a specific point and time. The change in magnetic declination due to location is much greater than the change due to time as the following chart illustrates.

Location **Date**	Aug 2008	Aug 2007	Aug 1998
Winnipeg	3° 46' E	3° 54' E	5° 4' E
Portage la Prairie	4° 51' E	4° 59' E	6° 14' E
Brandon	6° 26' E	6° 35' E	7° 56' E

Does the declination make any difference? The following chart shows how far from your desired target you will be if you ignore the declination. As the declination and distance travelled increase so does the error.

Distance travelled **Angle**	**1°**	**2°**	**3°**	**5°**	**10°**
100m	1.7m	3.5m	5.2m	8.7m	17.4m
500m	8.5m	17.5m	26m	43.5m	87m
1000m	17m	35m	52m	87m	174m

If you like formulas then an approximation of the above error is:

Error Distance = 0.017 * Degrees * Distance

Most non-orienteering maps are produced with the vertical axis of the map aligned to True North – i.e. the North Pole. This means that when using a compass with the map the user should take into account the magnetic declination when following any bearing obtained from the map.

Orienteers however don't want to be bothered with magnetic declination so they decided to make maps with the vertical axis aligned to magnetic north. This means that there is no difference between north on your compass and the magnetic north grid lines shown on the map. If only it was this simple we could end the article here. Remember that the magnetic declination changes with location and time. The orienteering map is for a fixed location so the location of the map won't change but the map is used at different times so the magnetic declination will change. Whether this change matters to you or not depends on a number of factors – size of the declination difference, distance travelled and your orienteering style. If the difference is 3 degrees and you travel 500m then the error from the preceding chart is 26m. This could be the difference between finding the control quickly or having to hunt around.

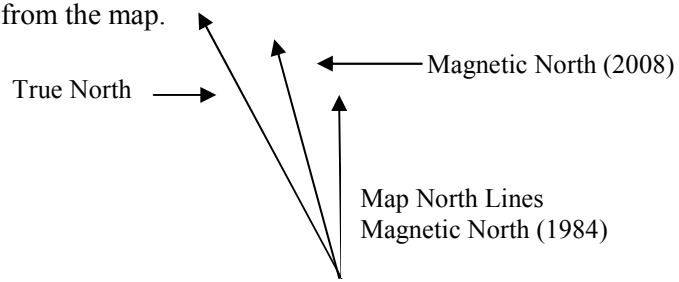
So for those orienteers that want to follow an exact bearing knowing the declination correction factor can be an important factor in the accuracy of your bearing. How do we calculate this correction factor? There are 2 ways it can be done. The first is by reference to a magnetic declination calculator and knowing when the map was produced. The second way is empirical by measuring a known bearing on the ground (a straight trail or road is ideal). Using the YellowQuill map as an example let's see what the difference is.

Method 1 – Using a Magnetic Declination Calculator

A good site for calculating magnetic declination is http://geomag.nrcan.gc.ca/apps/mdcal_e.php . Using this site for YellowQuill (49° 43' N 99° 16' W, map produced in 1984) we get the following results:

Magnetic Declination in June 1984: 9° 7' E
Magnetic Declination in June 2008: 5° 49' E

Thus magnetic north is actually 3° 18' west of the north meridians shown on the map. Thus to follow a bearing you need to add 3 degrees to the bearing obtained from the map.



Method 2 – Measuring in the Field

Using Hwy5 at the south end of YellowQuill we can measure on the map and see that the road has a bearing of 289°. If you stand on the road (watch out for traffic!) and use your compass you can obtain the current bearing. An accurate bearing is difficult to obtain with a thumb compass. A sighting compass is better. I took a couple of readings and averaged them – 292.5°. The difference this way is 3.5 degrees which compares with the 3 degrees obtained using the magnetic declination calculator.

Since a lot of our maps in Manitoba were originally produced in the 1980s and 1990s the difference in the magnetic declination can be a significant factor for those orienteers using distance and bearing to orienteer.

Manitoba Sandhills Orienteering Festival 2009

In 2009, Manitoba will host both the Western Canadian Orienteering Championships and the Canadian Orienteering Championships. For details about these events visit www.coc2009.ca.

Your Help Needed . . .

Mapping City Parks

The Coureur de Bois Orienteering Club wants to update its maps of Assiniboine Park, Kildonan Park, and St. Vital Park. The club has budgeted $500 per map and is offering mappers $15.00 per hour. If you are interested in updating any of these maps, please contact Rudi Bajt.

Note: To ensure that you will be paid for any mapping work, you must obtain prior approval from the appropriate club or the association.

The Pathfinder is produced by:

Manitoba Orienteering Association
200 Main Street
Winnipeg, MB
R3C 4M2

Tel: (204) 925-5706
Fax: (204) 925-5792
Email: info@orienteering.mb.ca

For more information about the sport of orienteering,
please visit www.orienteering.mb.ca.